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The illusion of chaos: The compositional structure of Olivier Messiaen's Le Merle Noir

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The Illusion of Chaos: The Compositional Structure of Olivier Messiaen's *Le Merle Noir*

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Dedication

I would like to dedicate this document to my parents, who have been 100% supportive of me during my journey as a musician and as a person. I am infinitely grateful for their love and guidance through all of these years. I would also like to dedicate this to my wonderful husband, Monte, and my always amazing children, Madeleine and Maxwell. Thank you so much for your constant confidence and unconditional love through this process.

Acknowledgements

I am grateful for the opportunity to personally thank the members of my document committee. Every one of them has been instrumental in my success as a student at James Madison University. First, Dr. Jason Haney, whose positive outlook and analytical advice was much appreciated through every step of this document's progress. Next, Dr. Mary Jean Speare, who has been one of the most influential educators with whom I have ever worked. Her demand for excellence has inspired me to expect more from my students as well as from myself. Finally, I would like to extend my deepest gratitude to Dr. Beth Chandler. Not only has she been my document committee chair, my advisor and my flute instructor at J.M.U., she has become a close friend. I will always be grateful for her patience and persistence as she pushed me to achieve much more than I ever thought possible.

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Abstract

When Olivier Messiaen submitted his work *Le Merle Noir* as the 1952 Paris *Conservatoire* examination piece for flute, he utilized a number of significant compositional techniques. At the time of its writing, Messiaen was in a phase of his *oeuvre* which included not only traditional methods of composition, but experimentation with more modern methods, such as dodecaphony, total serialism, and the use of birdsong as important thematic material. In *Le Merle Noir*, the amalgam of these methods results in a work that seems to have all of the wild and chaotic aspects of nature, but in reality has been painstakingly crafted using sophisticated compositional techniques. This illusion of nature's anarchy is complete when the work reaches its most carefully composed section, which utilizes the most intricate type of composition: total serialism. This research paper attempts to reveal these methods of composition through both new and established analysis and research, in order to bring to light the structure behind this seemingly chaotic work.

Introduction

In 1951, the officials at the Paris *Conservatoire* wanted to infuse a little "fresh air" into the annual *concours*, or musical examinations in the form of competitions held in each department.[1] *Conservatoire* director Claude Delvincourt commissioned fellow faculty member and accomplished composer Olivier Messiaen to write the piece which was to be performed for the 1952 flute *concours.* This was a fairly bold move, even though Delvincourt had established a precedent by commissioning other non-traditional composers, such as Henri Dutilleux, André Jolivet, and Eugène Bozza.

Although Messiaen had been on the faculty at the *Conservatoire* since 1947, his compositional style had begun to move into a more transitional and unpredictable stage beginning around 1949. According to noted musicologist Roger Nichols, this was a time in Messiaen's creative life when he felt the need to turn inward and renew his musical thinking.[2]

Time and again, man has turned to nature in moments of reflection, and Messiaen was no different. For him, the influence of nature seems a likely progression, as he was not only a musician, but an ornithologist. In this capacity, he transcribed the songs of the birds he collected and, at times, used them in his works as inspiration and thematic material. This tendency toward utilizing birdsong is evident in his work as early as 1941, when he composed the *Quatuor pour la fin du temps*.[3] Birdsong became almost exclusively the basis for his works in the 1950s, including his 1952 offering to the *Conservatoire*.[4] When composing *Le Merle Noir* (The Blackbird), he used the song of the Common Blackbird, *turdus merula*, as the

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[1] Roger Nichols, "Messiaen's *Le Merle Noir:* The Case of a Blackbird in a Historical Pie," *The Musical Times* 129 no. 1750 (1988): 648.

[2] Ibid., 648.

[3] Trevor Hold, "Messiaen's Birds." *Music & Letters* 52, no. 2 (1971): 112-122.

[4] Ibid., 112.

basis of a work which is unique among those written for flute and piano. Through meticulous order, he created the illusion of nature's chaos.

The purpose of this research paper is to reveal Messiaen's compositional methods in the creation of *Le Merle Noir* through both new and established research. This document will discuss the use of the two chief elements that were instrumental in the composition of this musical deception: birdsong and serialism. It will also contain a detailed investigation of the aspects that make this work significant, beginning with the two A sections, which comprise the bulk of the piece. Each of the A sections consists of six unique subsections that can be easily identified. The document will continue with the analysis of each individual instrumental line in the intricately composed B section. The amalgam of the compositional elements found throughout *Le Merle Noir* produces a work that exhibits the wild and chaotic characteristics of nature while sustaining a highly sophisticated musical structure.

Birdsong and *Le Merle Noir*

To fully understand the structure of *Le Merle Noir*, it is imperative to identify the main compositional components. As the title suggests, the main impetus behind this work is Messiaen's use of birdsong. Birdsong inherently contains many of the elements that are also found in human music. According to Hearthstone's article "The Monotony Threshold of Singing Birds," birdsong employs "'pitched' and 'unpitched' sounds; the repetition of melodic phrases, the repetition of rhythmic units, the use of crescendo and diminuendo, accelerando and ritardando; and a balance between sound and silence."[5] When compared with those of western art music, the stated components of birdsong seem strikingly similar.

However, as Trevor Hold highlights in his article "Messiaen's Birds," birdsong contains many elements that make it patently different from the majority of music created by

[5] Charles Hearthstone, "The Monotony Threshold in Singing Birds," *Auk* 73 (1971):176-92.

humans. One of these differences is that birdsong tends to be more highly pitched than human music. In his article in *Auk*, Albert Brand illustrates that the majority of the notes used by birds tend to be around the top range of the piano, and many employ notes which are even beyond this range.[6] Not only do birds sing higher, they tend to sing faster than that to which the human ear can respond. Along with the higher tessitura, this rapidity of song indicates that when birdsong is transcribed by humans, it often must be slowed down by some means in order to approach an authentic rendering of the song.[7]

One last difference between human song and birdsong is the regard given by humans to metrical importance. For the most part, birdsong does not fall into clearly defined metric division.[8] Birds tend to have no inclination toward metronomic precision and instead sing individually to answer each other. In his article "Messiaen's Birds," Trevor Hold is skeptical of accounts of Messiaen's transcriptions by ear of birdsong, and indeed it seems too difficult an undertaking to believe. In *Le Merle Noir,* whose very title gives it up as a work completely dedicated to the song of the blackbird, it seems less likely that Messiaen used an exact transcription of the song of the *turdus merula*, but more that he used the work as a representation of the rather unpredictable and difficult-to-notate song. Indeed, in Messiaen's own treatise he stated that "it is ridiculous servilely to copy nature."[9] Hold even brings to his readers' attention that Messiaen sometimes made significant changes to his birdsong, including transposing them and slowing down the rhythm so that they would be more usable within his works.[10]

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[6] Albert R. Brand, "Vibration Frequencies of Passerine Bird Song," *Auk* 55 (1938):264.

[7] Hold, "Messiaen's Birds," 113.

[8] Brand, "Vibration Frequencies of Passerine Bird Song," 264.

[9] Olivier Messiaen, *Technique de mon Langage Musical*, Vol. 1. *trans.* John Satterfield (Paris: Alphonse Leduc, 1956), 32.

[10] Hold, "Messiaen's Birds," 113.

Serialism and *Le Merle Noir*

Although the use of birdsong (specifically the song of the Common Blackbird) was the main compositional component in *Le Merle Noir,* it was not the only technique that Messiaen used in the creation of this work. The last third of the work is an amalgam of Messiaen's representation of this particular birdsong and one of the most sophisticated and complex compositional methods developed: serialism.

In the 1920s, composer Arnold Schoenberg devised the twelve-tone system in order to "methodically equalize all pitches of the dodecaphonic scale."[11] This method of manipulating elements can go beyond the serialization of pitches. Serialization can occur at many different levels, depending on the number of musical elements that are manipulated. When all elements of a work are serialized, including non-pitch elements like rhythm, dynamics, tempo, meter, and articulation, the result is total serialization.[12] Interestingly, one of the first works to incorporate the idea of complete serialism was Messiaen's *Mode de valeurs et d'intensités* (Mode of Values and Intensities), which is the second of his *Quatre etudes de rythme*[14] of 1949.[15] According to his 2002 article, "Olivier Messiaen as Serialist," Allen Forte suggests that not only was Messiaen aware of Viennese serial trends, but that he found them to be oriented toward individual pitches, as opposed to multi-note statements, harmonically deficient and "in general, dark in colour or grey."[16] Through his own serial works, Messiaen strove to demonstrate how this type of compositional technique could be used to create music that was completely different from the serial music emerging from the Viennese

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[11] Stefan Kostka and Dorothy Payne, *Tonal Harmony* (New York: Alfred A. Knopf, Inc., 1984), 466.

[12] New Music Forum. "Total Serialism." Newmusicforum/?page_id=373 (accessed February 4, 2012).

[14] Ibid.

[15] Boston University Messiaen Project. "*Quatre etudes de rythme*." Oliviermessiaen.net/ compositions/details/id:e:58. (accessed March 10, 2012).

[16] Allen Forte,"Olivier Messiaen as Serialist." *Musical Analysis* 21, no. 1 (2002):3-34.

school.[17] He experimented with this method in a few of his works between the *Mode de valeurs et d'intensites* of 1949 and 1952's *Le Merle Noir*. Shortly after composing *Le Merle Noir,* Messiaen abandoned his serial experimentation and focused on a very different aesthetic, namely his use of birdsong.[18] Because *Le Merle Noir* utilizes both birdsong and serial techniques, the importance of this work should not be understated.

Musical Analysis of *Le Merle Noir*

Roger Nichols notes that the overall form of *Le Merle Noir* is in a common song form, bar form, or AA^1B.[19] This particular song form originated in the Meistersinger guilds of fifteenth-century Germany, who used the term "bar form" to describe particularly clever and artful songs which included two main sections: two statements of the A section (or stanzas), followed by the B section, which they called the *Abgesang* or "aftersong."[20] In Messiaen's use of the form, he does not repeat the A section exactly, but varies it enough so that it can be identified as A^1. The B section is characteristic of bar form in that it has a much different character from the two A sections. Nichols notes that each of the A sections can be divided into six subsections, as is illustrated in the following adaptation of Nichols' table, seen in **Table 1.**[21]

Table 1. Overall musical structure of *Le Merle Noir* sections A and A^1

Subsection	*A*	*A^1*
Introduction of Tone Row (A1)	mm. 1-3	mm. 44-46
Bird Cadenza	3-8	46-53

[17] Ibid., 5.
[18] Ibid., 29.
[19] Roger Nichols, "Messiaen's '*Le Merle Noir*': The Case of a Blackbird in a Historical Pie," *The Musical Times* 129, no. 1750 (1988): 648-650.
[20] Oxford Music Online, s.v. "Bar Form," http://www.oxfordmusiconline.com/subscriber/article/grove/music/02045 (accessed March 15, 2012).
[21] Nichols, "Messiaen's '*Le Merle Noir*': The Case of a Blackbird in a Historical Pie," 648.

(A2)		
Canon Using Additive Rhythms (A3)	9-26	54-71
Stacked Octaves (A4)	27-29	72-75
Color Chords (A5)	29-35	75-82
Transitory Material (A6)	36-43	83-90

Source: Adapted from Roger Nichols, "Messiaen's '*Le Merle Noir*': The Case of a Blackbird in a Historical Pie," *The Musical Times,* Vol. 129, No. 1750 (1988): 648.

As is evident in **Table 1**, the length of each of the six sections is comparable, but each contains subtle differences.

The first subsection within the A sections (to what Nichols refers as A1) is not only what Nichols calls "piano atmosphere,"[22] but more specifically a foreshadowing of compositional techniques to come. Here Messiaen creates a deep and "rumbling"[23] piano shape (seen in **Figure 1**), which serves to create a misty atmosphere from which the flute's blackbird cadenza soon emerges. By utilizing two forms of the tone row used in the B section of the work, Messiaen gives the listener a suggestion of the careful organization lying beneath a façade of random happenings. This concept will be explored in further detail in the discussion of the work's B section.

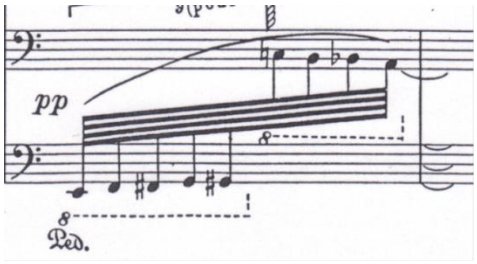

Figure 1. *Le Merle Noir,* piano score, m. 1

[22] Nichols,"Messiaen's '*Le Merle Noir*': The Case of a Blackbird in a Historical Pie," 648.

[23] David Kraft, "Birdsong in the Music of Olivier Messiaen" (Ph.D. diss., Middlesex University, 2000), 155-166.

As was previously stated, Messiaen was an avid ornithologist and found inspiration in birdsong, using it especially throughout this time period.[24] The second subsection (Nichols' A2) is representative of Messiaen's perspective on the song of the Common Blackbird, *turdus merula*. Because of its free and improvisatory nature, lack of meter, and monophonic texture, it is generally considered to be a cadenza based on birdsong. The marking *"un Peu Vif, avec Fantaisie"* suggests to the performer that this section should be played a bit faster and with a bit more freedom. Even this stylistic suggestion helps to create a feeling of the freedom of movement that a blackbird in the wild would have.

The bird cadenza uses not only Messiaen's interpretation of the blackbird's call, but also other rhythmic conventions which are more idiomatic to other modes of expression, such as poetry. Nichols presents a concept introduced by Paul Griffiths[25] to describe Messiaen's favoritism of certain pitches used in the bird cadenza sections of *Le Merle Noir*. Griffiths coined the term "motivic islands"[26] to describe Messiaen's use of brief statements of musical fragments that tend to center around a few chosen pitches. In the case of *Le Merle Noir,* these pitches are D, E-flat, G-sharp, and A. When a pitch count is tallied, the evidence is very convincing that these are the pitches favored, as illustrated in the following table of the pitch count of the A-section bird cadenza (**Table 2**).

Table 2. Pitch frequency in bird cadenza (A2) in section A

Pitch	*Number of times used*
C	7
C#/Db	4
D	17
D#/Eb	13
E	3

[24] Hold, "Messiaen's Birds," 113.

[25] Nichols, "Messiaen's '*Le Merle Noir*': The Case of a Blackbird in a Historical Pie," 648.

[26] Paul Griffiths, *Olivier Messiaen and the Music of Time* (Great Britain: Cornell University Press, 1985),147.

F	7
F#/Gb	4
G	6
G#/Ab	13
A	15
A#/Bb	0
B	5

David Kraft elaborates on this idea in his dissertation, *Birdsong in the Music of Olivier Messiaen*,[27] providing a table, illuminating Messiaen's use of Gregorian melodic patterns as well as stress/rhythmic patterns idiomatic to poetry. Kraft's findings are noted in **Table 3**.[28]

Table 3. David Kraft's table of note groupings

Bar	Groups	Other Features
3	3x (*scandicus*), 7x+C# & B, D and neighbor note alternator	Includes final B
4	Single note D, 5x, iamb, 5x+C	
5	5, 3	Includes final B
6	4x, 4x, flutter-tongue, 7x,+ 'chirp'	
7	5x, iamb (minor 9th 'call'), 5 (staccato), 2 longer durations	Repeated F natural
8	5x, 4, iamb, 8x+C#&C, iamb, 3, flutter-tongue, five chromatic demisemiquavers	Repeated F natural

Source: David Kraft, "Birdsong in the Music of Olivier Messiaen" (Ph.D. diss., Middlesex University, 2000), 158.

In this table, Kraft deconstructs the first bird cadenza measure by measure into recognizable patterns. Measure 3 begins with three of the pitches most used by Messiaen in this work, A, E-flat, and D. Kraft indicates this favoritism in his table by showing that the first event that occurs in the flute line is "3x." This designation indicates that the first note grouping is made of three of the four favored notes; an assembly which is identified in Kraft's work as "x." He then identifies this grouping as a "*scandicus*," one of four traditional

[27] Kraft, "Birdsong in the Music of Olivier Messiaen," 158.
[28] Ibid.

patterns of neumes found in medieval chant notation.[29] The *scandicus* is characterized by three notes moving in an ascending pattern. It appears that Kraft has taken some liberty with this categorization, as it is evident that the pattern does not continue upward, but instead changes direction after the second pitch and descends (see **Figure 2**).

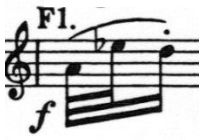

Figure 2. m. 3 (flute only)

Perhaps a more accurate description would be to label this figure as related to the four-note neume grouping of the *scandicus flexus*, which includes three ascending pitches followed by one descending pitch. Another option might be to label it a *torculus*, which is made of three pitches in an up-down-up pattern, and one in which this figure certainly fits.[30]

The next "motivic island,"[31] seen in **Figure 3**, is the seven-pitch figure ending in B that Kraft labels "7x+C# & B." There is no question that this identification is accurate; Messiaen has written a seven-note grouping using the four favored notes and has added a C-sharp and a B in the final crescendo of the figure. Interestingly, the next utterance of the bird is much softer, labeled "*p,"* and has the character of an afterthought. Kraft has labeled this as a "D and neighbor note alternator."

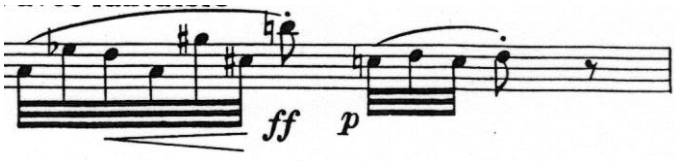

Figure 3. m. 3 (flute only)

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[29] *Oxford Music Online,* s.v. "Notation, 1. History of Western Notation: Plainchant," http://www.oxfordmusiconline.com/subscriber/article/grove/music/20114pg4 (accessed March 15, 2012).

[30] Our Lady of Perpetual Help Resource Center. "Gregorian Chant Notation." http://lphrc.org/Chant/ (accessed February 2, 2012).

[31] Griffiths, *Olivier Messiaen and the Music of Time*, 147.

In measure 4, Kraft identifies the gesture that follows the outburst of a D with a D grace note as a "5x" figure (**Figure 4**) is very apparent and not to be contested.

Figure 4. m. 4 (flute only)

However, Kraft's identification of the next figure is questionable from a performance standpoint. Here he uses traditional Greek poetic meters, and he labels this rhythm of a sixteenth note plus an eighth note with added tenuto marks as an "iambic" figure.[32] This characterization implies that the stress of the rhythm should fall on the longer of the two pitches, or the F. A performer would argue that there should be more stress placed on the first of the two pitches because of the order in which it appears, the presence of the tenuto accent, as well as the fact that it is a whole step higher than the note it precedes (see **Figure 5**). This close attention to performance style would put this figure into the category of the *trochee* meter, or a stressed syllable followed by a longer, unstressed syllable.[33]

Figure 5. m. 4 (flute only)

This figure is seen three more times in the first cadenza, and each subsequent occurrence is marked with an accent on the first note of the grouping (see **Figure 6**), further dispelling the possibility of this figure as iambic.

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[32] Kraft, "Birdsong in the Music of Olivier Messiaen," 158.

[33] *Encyclopedia Britannica Online*, s.v. "Foot (prosody)," http://www.britannica.com/EBchecked/topic/212783/foot (accessed February 27, 2012).

Figure 6. m. 7 (flute only)

In measure 7, a figure is seen which Kraft labels as "2 longer durations," but may be more accurately described as an augmented version of the aforementioned *trochee* pattern. Although the first pitch is the same as the second, its placement as the main note in the grouping gives it more stress from the perspective of the performer, and therefore is still seen as a *trochaic* pattern (**Figure 7**).

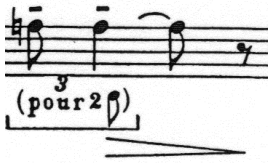

Figure 7. m. 7 (flute only)

Both of the bird cadenza sections include a technique which was, at the time of *Le Merle Noir* 's composition, a fairly novel one. The use of the *flatterzunge* (flutter tongue) in this work serves a dual purpose. Not only does it show the flutist's ability to perform *avant garde* techniques in a work that was written as an examination piece, but it duplicates the blackbird's rattling alarm call, efficiently completing the mimicry of the bird in the flute.[34] This alarm call is used three times in the work, once in the first cadenza and twice in the second. Two of these alarms are used in the same manner; they create an effective break before the last "motivic island"[35] occurs in each of the cadenzas. These last figures are similar in that they are each very soft, marked "*ppp*," and they are both chromatic. The first of these gestures is a five-note chromatic ascension from E to G-sharp and may be

[34] British Garden Birds website, "Blackbird" http://www.garden-birds.co.uk/birds/blackbird.htm (accessed November 9, 2011).

[35] Griffiths, *Olivier Messiaen and the Music of Time,* 174.

characterized as a secondary gesture: an addendum to the bird's momentary outburst of song (see **Figure 8**).

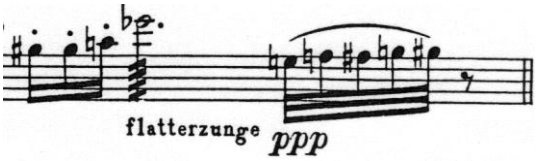

Figure 8. m. 8 (flute only)

The second alarm-call figure, seen in **Figure 9**, follows a longer alarm call (four beats) and is followed by a six-note chromatic descent from A to E.

Figure 9. m. 53 (flute only)

It is important to note that the first four pitches in the A cadenza and the last four of the A^1 cadenza are identical, providing musical bookends to the sections of birdcalls within the work. These four notes are identical to the first four of the opening piano measure, which are derived from the serial aspect of the B section of the work.

As seen in the **Figure 9** above, the second cadenza does not end with the chromatic afterthought, but rather with a slightly louder two eighth-note grouping of C-sharp and E-sharp. This rhythmic pattern has been convincingly identified by Kraft as being a *spondee* poetic pattern,[36] evident in the long-long duration pattern with no discernible marked or implied stress.[37]

The third subsection of *Le Merle Noir*'s A section (A3) is a canon using additive rhythms. **Figure 10** illustrates that Messiaen's use of what he terms "added value" to create a

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[36] *Encyclopedia Britannica Online*, s.v. "Foot (prosody)," http://www.britannica.com/EBchecked/topic/212783/foot (accessed February 27, 2012).

[37] Kraft, "Birdsong in the Music of Olivier Messiaen," 158.

flowing, but off-kilter melody which begins as a simple three-measure call and response in measure 9. [38]

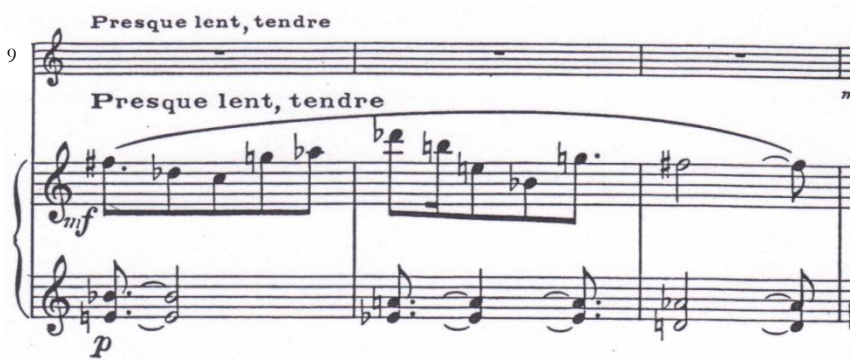


Figure 10. mm. 9–11

Roger Nichols calls this section the "combined song"[39] portion of A. He states that throughout the progression of the work, Messiaen has created "a kind of lesson in the history of music."[40] If the listener heeds this approach, the first subsection (or A) can certainly be imagined as the Primordial ooze or mist from which life may have emerged, the bird cadenza (A2) may be seen as a kind of chant, monophonic, organic, and free-flowing in nature. The canon, therefore, may be seen as the evolution from monophonic plainchant to simple call and response singing. Throughout the first of the A sections, the canon retains this simple character, and is seen as mainly responsorial in nature. However, when it reappears in A^1, it has made the logical progression from simple repetition to a much more sophisticated canon beginning in measure 54 (**Figure 11)**.

[38] Messiaen, *Technique de mon Langage Musical*, 16.

[39] Nichols, "Messiaen's '*Le Merle Noir*': The Case of a Blackbird in a Historical Pie," 648.

[40] Ibid., 649.

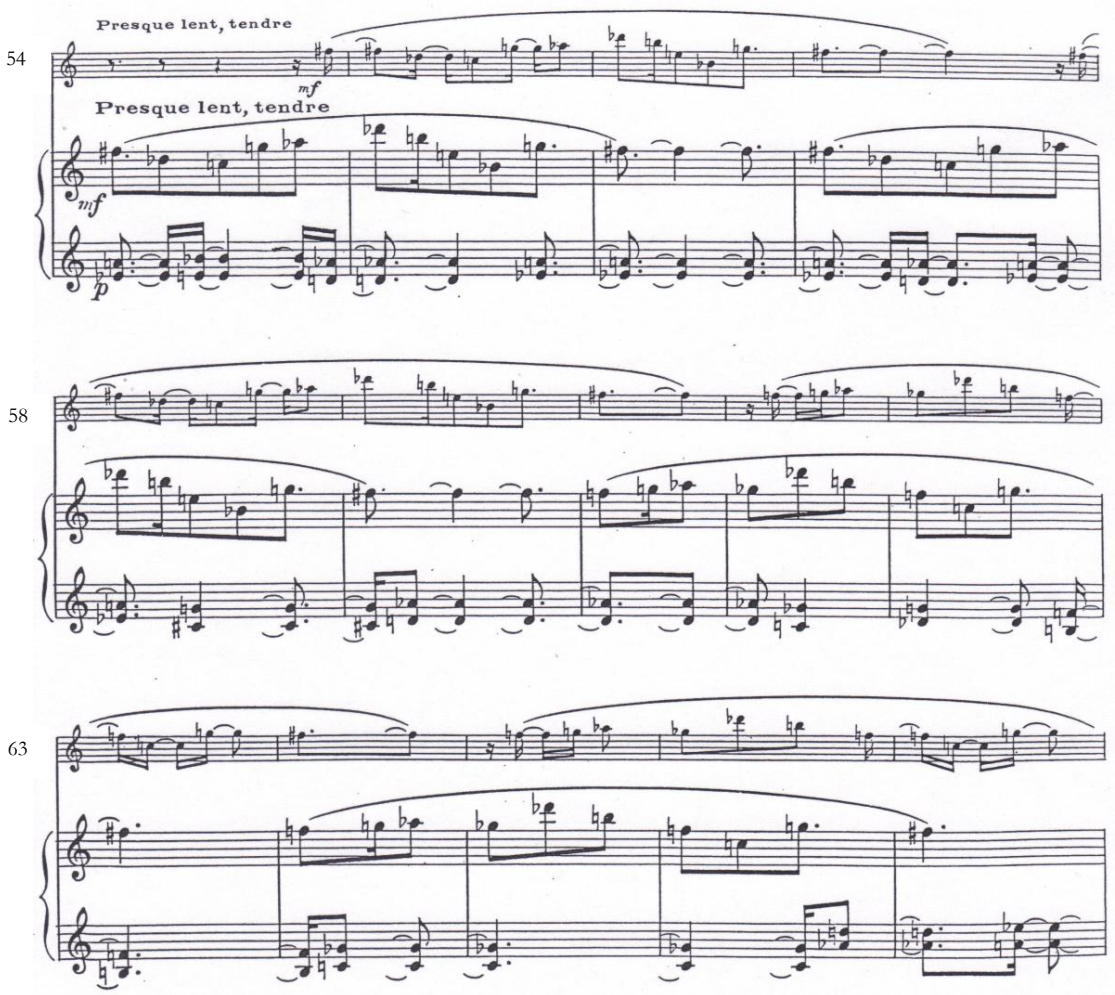


Figure 11. mm. 54–67

Here, the transformation from antiphonal music to contrapuntal canon occurs in both the flute line and the right hand of the piano. Note that the rhythmic values remain the same, but that the flute enters on the eleventh sixteenth of the piano's grouping.

In the third declaration of this canonic theme, as shown in **Figure 12**, Messiaen again allows the music to evolve by creating three measures of three-voice canon between the piano's right hand, left hand, and the flute. Important to note is that the canon is spaced at the distance of two sixteenth notes as the rhythm becomes increasingly more complicated and the canon progresses. This complexity is also reflected in the significant challenge it presents to the performers.

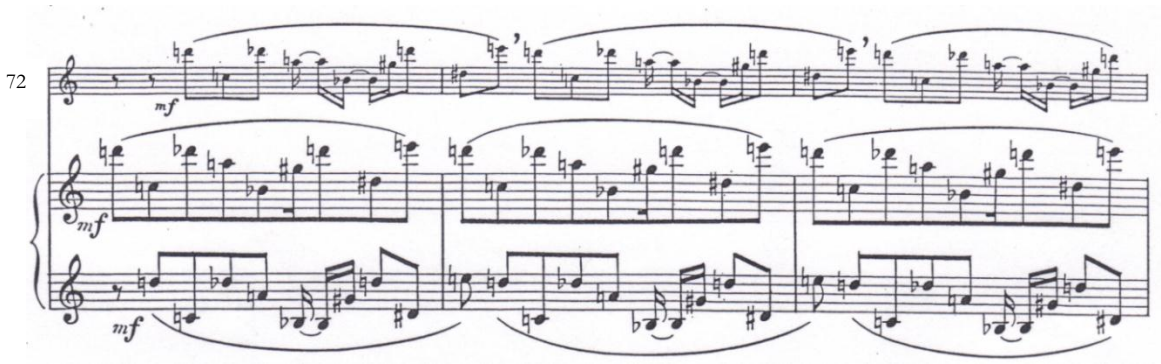


Figure 12. mm. 72–74

The fourth subsection of A (A4) is the appearance of the stacked octaves. This section begins in measure 27, and although it is only two measures in length, it is a very poignant moment in the work. Here, Messiaen again treats the piano as cantor, but this time he creates a sense of insistence and urgency by duplicating the off-kilter melody at the octave only within the piano (see **Figure 13**).

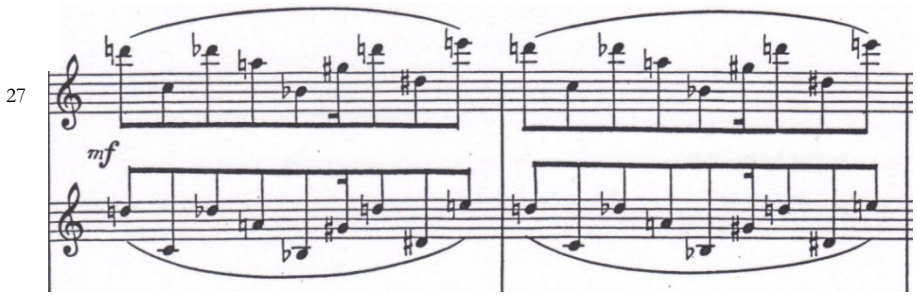


Figure 13. mm.27–28 (piano only)

When the flute enters with the thematic fragment of the stacked octave section, the piano and flute momentarily overlap two ideas. These two ideas are the fourth and fifth segments of the A section. While the flute answers the call given by the piano, the piano begins color chords (see **Figure 14**).

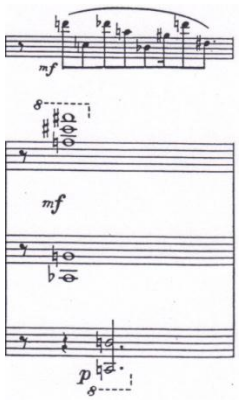


Figure 14. m. 29

At this point in the work, Messiaen creates color chords by stacking tritones and half-steps. These inert chords, although carefully notated, create an atmosphere of musical stasis and seem virtually to hover above the listener. This stillness gives the impression of a calm before the musical storm occurring in the sixth and final segment of the A sections.

The first instance of this transitional section of A6 can be seen in **Figure 15**, where Messiaen notates the tempo as "*Un peu vif.*" From the beginning of this section, the piano plays a brittle and violent flourish foreshadowing the rigid quality of the flute line which follows.

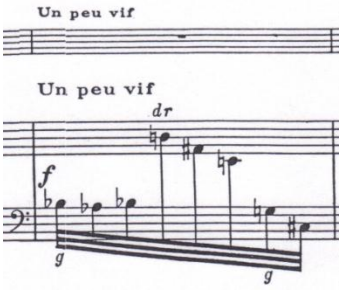


Figure 15. m. 36

As shown in **Figure 16** this line is made even more fevered by the addition of staccato marks above each of the articulated sixteenth notes. Messiaen even takes the care to add them under the second of each of the slurred groupings, which intensifies the severity of the phrase.

Figure 16. mm. 37–41 (flute only)

While the flute line responds violently to the piano's outburst, the piano abandons vicious articulation in favor of alternating half- and whole-step trills, as illustrated in **Figure 17**. These rapid revolutions assist in the intensity of the moment, yet allow the flute to emerge as the dominant voice during this transition to the next section.

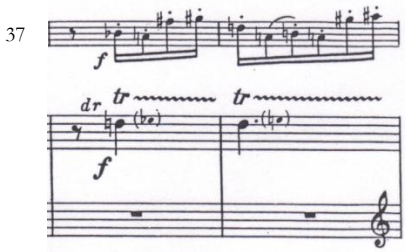


Figure 17. mm. 37–38

The restatement of the A section beginning in measure 44 is of course not exact, but retains or builds upon many of the elements found in the A section.

Like many other works in bar form, the B section of *Le Merle Noir* contrasts significantly with the preceding sections. Beginning at the *Vif* in measure 91 (**Figure 18**), Messiaen alludes to the first perceptible common meter that is seen thus far. From this point until the end of the work, without variance he creates rhythmic groupings and adds bar lines in such a way that the B section appears to be in simple 2/4 meter. This distinction is most clearly evident in the flute line.

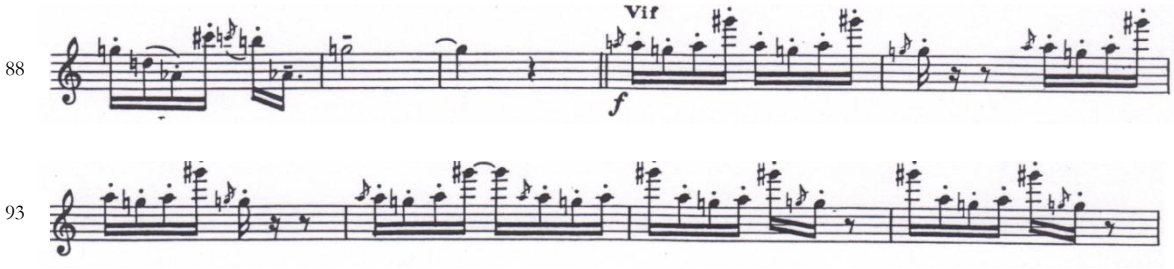


Figure 18. mm. 88–96 (flute only)

According to Irna Priore's *Flute Talk* article, "The Compositional Techniques of Messiaen's *Le Merle Noir,*" the entire B section is representative of "a multitude of birds singing at the same time."[41] Although this segment of the work may appear completely accidental and chaotic (much as a great mass of birds singing at once seems random), it is actually the most controlled and restrained section of the entire work. In order to thoroughly analyze this section, the flute line and the piano line must be considered separately.

As is evident in **Figure 19,** the flute line beginning at the *Vif* is relatively simple, but becomes increasingly more complex as it progresses.

[41] Irna Priore, "The Compositional Techniques of Messiaen's *Le Merle Noir," Flute Talk* (April 2001): 12.

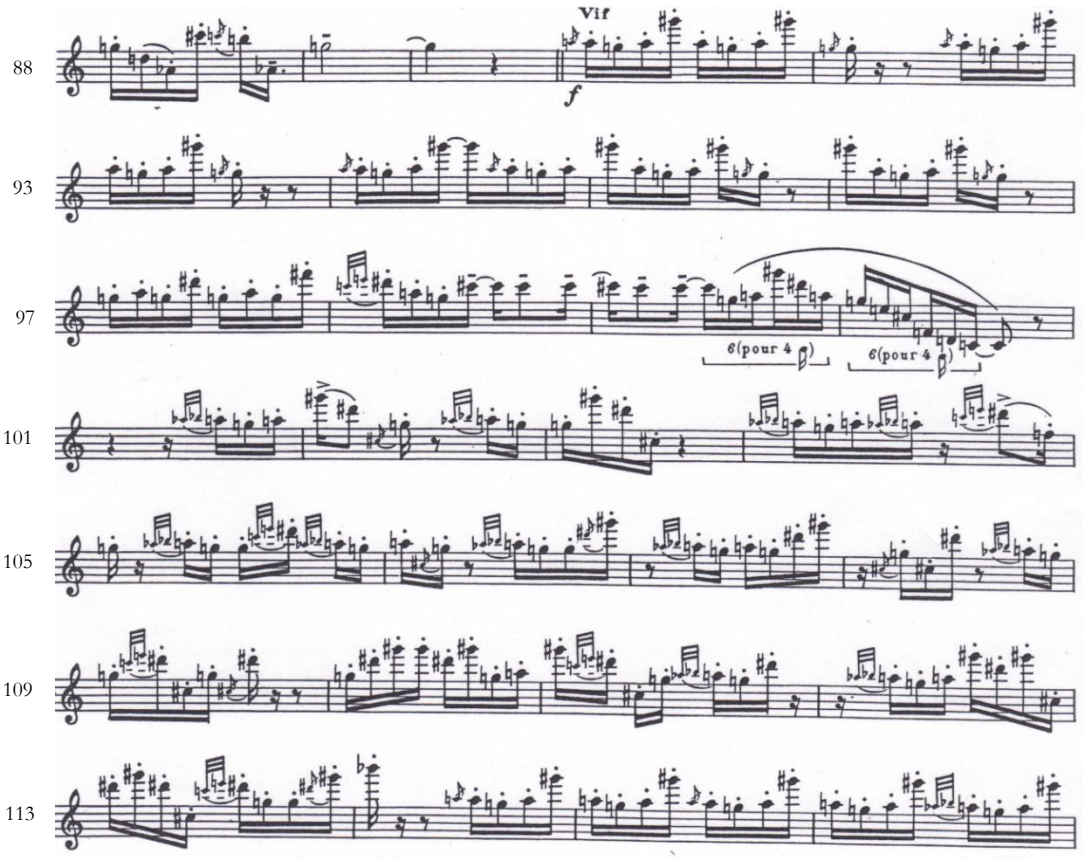


Figure 19. mm. 88–116 (flute only)

As in the A sections, Messiaen shows favoritism of a few of the chromatic pitches. When the pitches are counted, this preference becomes evident. In order of apparent importance, the pitches most used are G, A, A-flat, D-sharp and C-sharp (see T**able 4**).

Table 4. Frequency of pitches in the B section flute part

Pitch	*Number of times used*
C	3
C#/Db	21
D	3
D#/Eb	25
E	3
F	4
F#/Gb	1
G	54
G#/Ab	31
A	52
A#/Bb	4
B	0

When the G is removed from this grouping, it becomes clear that the pitches Messiaen has chosen as the basis for his birdsong in the B section are the same, or at least enharmonically equivalent to those that were used in each of the birdsong cadenzas in the A sections. This preference for the four-note grouping of A, E-flat, D, and G-sharp creates a consistency throughout the work which, if not readily apparent to the listener, demonstrates Messiaen's careful approach to the composition of *Le Merle Noir*.

The repetition of only a few pitches is characteristic of Messiaen's version of the song of *turdus merula* throughout *Le Merle Noir*. This repetition is intensified by the addition of quick grace notes in the flute line. In **Figure 20**, it is clear that Messiaen increases the saturation of the flute line by adding so many of these quick notes that the flute seems to flit about in a random pattern.

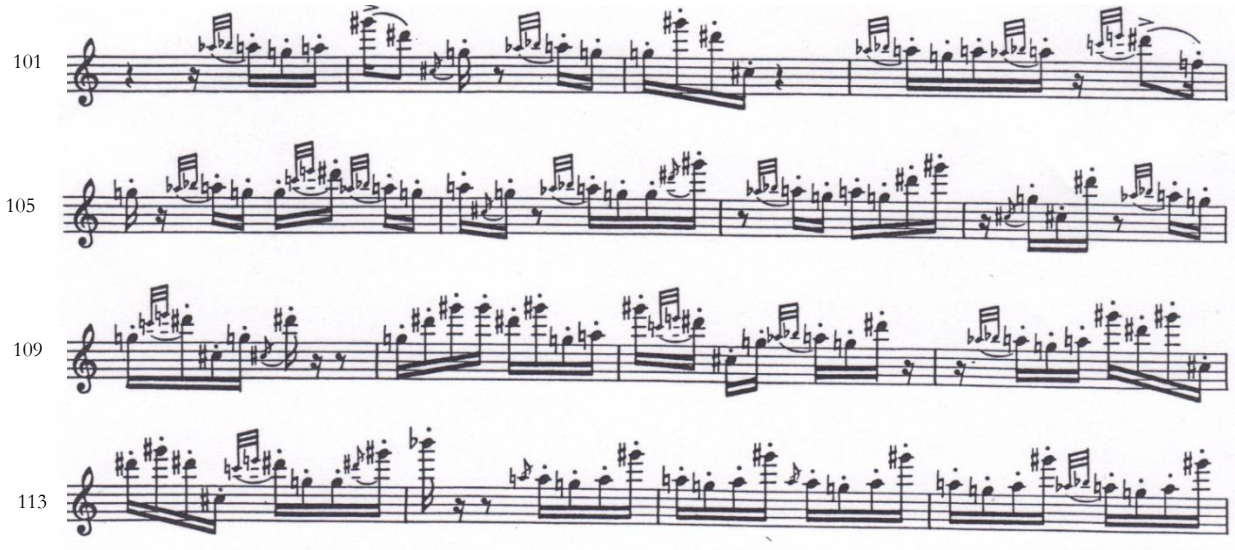


Figure 20. mm. 101–116 (flute only)

The repetition of pitches beneath this saturation remains consistent throughout the B section. Although Messiaen uses each chromatic pitch with the exception of B, as mentioned above, the majority of this section rotates around only five pitches. This

economy of pitches gives the impression of a bird circling as if it were fluttering around in a closed room.

Interestingly, when the grace notes are extrapolated and a separate assessment of pitch frequency is made on the grace notes as a separate entity, Messiaen's preference for particular tones is also seen. **Table 5** illustrates the pitch frequency of grace notes independent from the main pitches.

Table 5. Frequency of pitches used as grace notes in B section flute part

Pitch	*Frequency of use as grace note*
C	6
C#/Db	4
D	0
D#/Eb	2
E	6
F	0
F#/Gb	0
G	4
G#/Ab	13
A	6
A#/Bb	13
B	0

Clearly, A-flat and B-flat are the most frequently used pitches, each recurring a total of thirteen times throughout the B section. These primary pitches are followed by C, E, and A, each of which is used six times. The pattern of use remains constant throughout the section.

In twelve of the thirteen occurrences in which the A-flat and B-flat are used as grace notes, they always precede a sixteenth-note A. The rhythmic position of the A is transient, however, and may appear in different sixteenth-note positions within either of the two beats in the measure. In **Figure 21**, this grouping of A-flat—B-flat—A is found in four different rhythmic positions: first, in measure 101, on the second sixteenth of the second beat, then in measure 102 on the third sixteenth of the second. In measure 103, the pattern is absent, but

this absence is compensated for in measure 104, where Messiaen uses it on both the first and the fourth sixteenths of the first beat.

Figure 21. mm. 101–104 (flute only)

The thirteenth recurrence of the A-flat is in **Figure 22**, where Messiaen uses the enharmonic equivalent (G-sharp) to precede the A, which is found in the third sixteenth of the second beat.

Figure 22. m. 117 (flute only)

This is the only time the A-flat/G-sharp is found without its B-flat partner, but the occurrence is balanced when, as seen in **Figure 23**, the B-flat is used as a solitary grace note preceding a C. This C is not only the last note of the piece, but it is also the highest note in the work and is near the top of the flute's range.

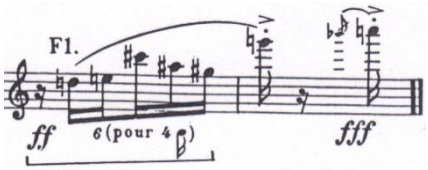


Figure 23. mm. 124–125 (flute only)

The C and E combination are the second most-used pitches and, like the A-flat and B-flat grace notes, are always seen preceding the same pitch. In the case of the C and E grace

notes, the third note in the pattern is D-sharp.[42] The rhythmic nature of this grouping is also transient, as illustrated in **Figure 24**.

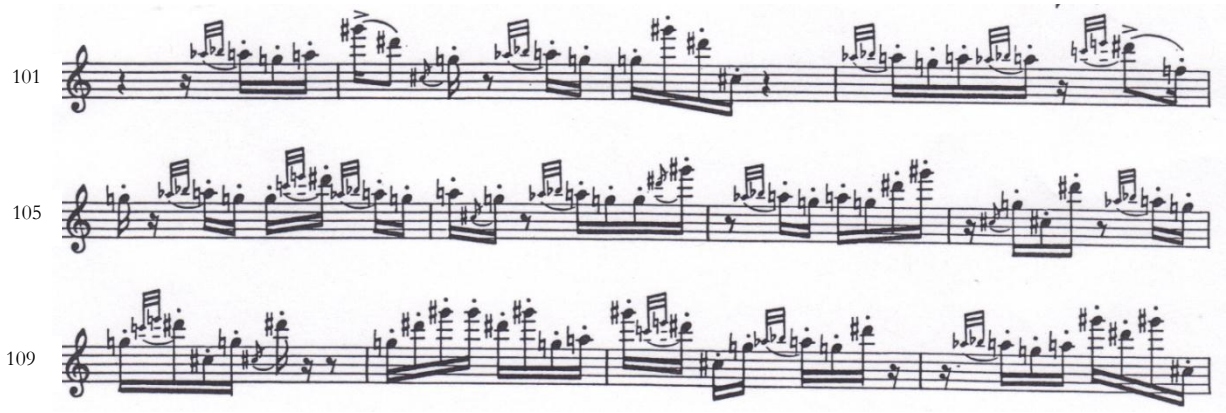


Figure 24. mm. 101–112 (flute only)

Again, beginning in measure 101, the C and E grace notes occur in measure 104 (their second appearance) on the second sixteenth of the second beat. In the following measure, they occur on the second sixteenth of the second beat. The next occurrence is not until measure 109, where they appear on the second sixteenth of the first beat. Two measures later (measure 111), they are again in the first beat on the second sixteenth. This grouping exists within the B section only six times, about half as many times as the A-flat and B-flat grace note grouping; yet this grouping shows the same predilection for remaining melodically constant, if not rhythmically so.

The next most frequently used grace note is the solitary A, which always precedes a sixteenth-note A, with one exception. In **Figure 25**, it can be seen that the solitary A grace note precedes a D-sharp and is the penultimate occurrence of the grace note idea within the work. Of the remaining grace note outbursts, the G is the only one to be completely consistent with its grouping pattern. It always precedes a sixteenth-note G, and it always

[42] It is important to recognize that in each of these three-note groupings, the penultimate and ultimate notes are a half-step apart, a relationship which can be seen throughout the work.

appears as the last utterance following the solitary A grace note pattern. Although it only appears four times, and each appearance occurs within the first six measures of the B section, the G offers a balance to the solitary A grace note, as well as a finality to the first four statements of the birdsong.

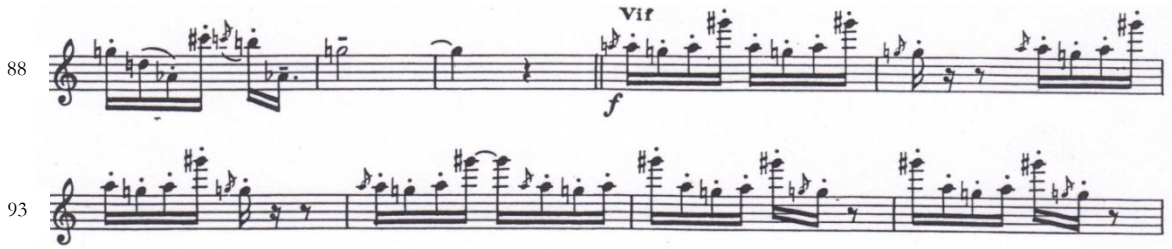


Figure 25. mm. 88–96 (flute only)

With the last two grace note gestures, Messiaen exhibits the same sort of fondness for grouping, but they are less consistent. Of the four appearances of the C-sharp grace note, three precede a G. The last time the grace note figure occurs, it precedes a D-sharp. Understandably, these appearances are not as closely spaced as those that occur more frequently, but the transitory rhythmic placement is consistent. The first time the C-sharp grace note appears, it is found in measure 102 on the fourth sixteenth of the first beat. In both measures 106 and 108, it occurs on the second sixteenth of the first beat. In measure 109, the C-sharp grace note makes its last entrance. In this incarnation, it is not only linked to a different note (D-sharp), but it occurs in a strong position on the first sixteenth of the second beat of that measure, effectively concluding a bird call (see **Figure 26**).

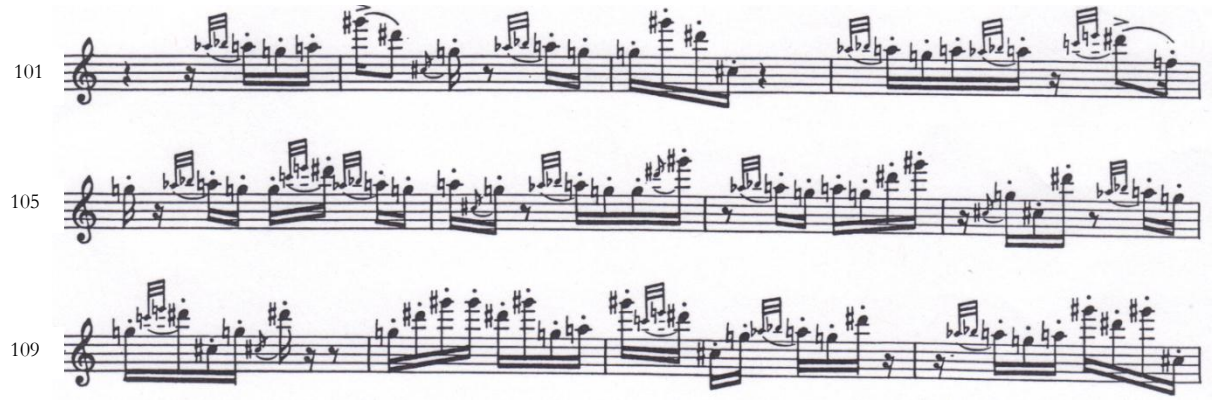


Figure 26. mm. 101–112 (flute only)

The D-sharp grace note is only used twice, each time preceding a G-sharp and always in the same position, the fourth sixteenth of beat two. The first occurrence of this D-sharp is at the end of measure 106, while the second is at the end of measure 113, as shown in **Figure 27**.

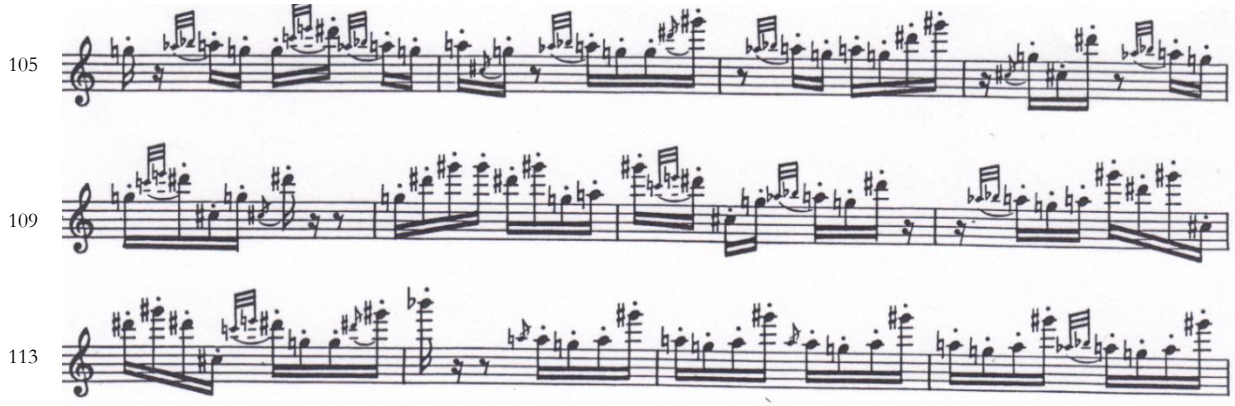


Figure 27. mm. 105–116 (flute only)

When analyzing the B section, the extrapolation of the flute line becomes necessary in order to see the brilliant organization in the serialization of the piano line. Upon first glance and even aurally, the B section of *Le Merle Noir* may appear to be random and chaotic. However, Messiaen was painstaking in his craftsmanship, in order to create a work which, although it may seem haphazard, is actually very systematically organized.

This careful organization is evident in the very first musical gesture heard in the work. The "rumbling"[43] piano figure is not just an effect; this shape is Messiaen's hint of what later appears as a fully serialized piano part (see **Figure 28**).

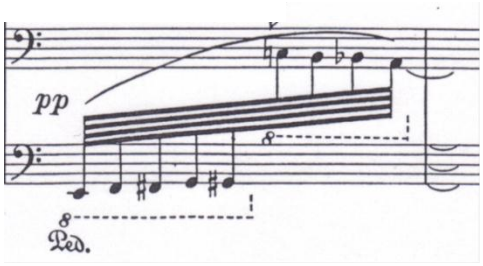


Figure 28. m. 1 (piano only)

The melodic nature of the piano part in the B section is based on a tone row that Messiaen created at the end of a time when much of his work was experimental regarding serial techniques.[44] The prime row consists of A, D, G-sharp, D-sharp, B-flat, G-flat, E, C, D-flat, B, F, and G. This first instance of the prime row occurs in the right hand of the piano beginning in measure 91 (**Figure 29**). As found in many strict serial works, there is absolutely no duplication of pitches within the row until the complete row has been stated. This meticulous care for pitch arrangement continues throughout this section of the work.

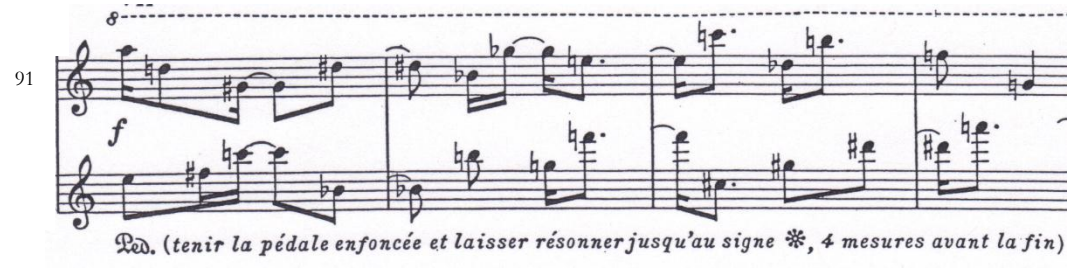


Figure 29. mm. 91–94 (piano only)

[43] Kraft, "Birdsong in the Music of Olivier Messiaen," 157.

[44]Vincent Benitez, "Reconsidering Messiaen as Serialist," *Music Analysis* 28, no. 2-3 (July-October 2009): 267.

The following matrix (**Table 6)** demonstrates all of the possible forms of the original (or prime) row.

Table 6. Matrix of *Le Merle Noir*

	I0	I5	I11	I6	I1	I9	I7	I3	I4	I2	I8	I10	
P0	**A**	**D**	**G#**	**D#**	**Bb**	**Gb**	**E**	**C**	**Db**	**B**	**F**	**G**	**R0**
P7	E	**A**	D#	**Bb**	F	Db	**B**	G	G#	Gb	**C**	D	R7
P1	**Bb**	**D#**	**A**	**E**	**B**	**G**	**F**	**Db**	**D**	**C**	**Gb**	**G#**	**R1**
P6	D#	**G#**	D	**A**	E	C	**Bb**	Gb	G	F	**B**	Db	R6
P11	G#	**Db**	G	**D**	A	F	**D#**	B	C	Bb	**E**	Gb	R11
P3	**C**	**F**	**B**	**Gb**	**Db**	**A**	**G**	**D#**	**E**	**D**	**G#**	**Bb**	**R3**
P5	D	**G**	Db	**G#**	D#	B	**A**	F	Gb	E	**Bb**	C	R5
P9	Gb	**B**	F	**C**	G	D#	**Db**	A	Bb	G#	**D**	E	R9
P8	F	**Bb**	E	**B**	Gb	D	**C**	G#	A	G	**Db**	D#	R8
P10	G	**C**	Gb	**Db**	G#	E	**D**	Bb	B	A	**D#**	F	R10
P4	Db	**Gb**	C	**G**	D	Bb	**G#**	E	F	D#	**A**	B	R4
P2	**B**	**E**	**Bb**	**F**	**C**	**G#**	**Gb**	**D**	**D#**	**Db**	**G**	**A**	**R2**
	RI0	**RI5**	RI11	**RI6**	RI1	RI9	**RI7**	RI3	RI4	RI2	**RI8**	RI10	

In the B section of *Le Merle Noir,* Messiaen uses only two of the four possible row forms: the prime form and the retrograde inversion of the prime form (shown in bold in **Table 6**). Of these two forms, he chose eight total combinations with which to work. As illustrated in **Table 7**, it is clear that the composer made a conscious choice regarding the order of pitches in the row and the subsequent row forms. When formulating the matrix, it becomes apparent that the first form of the prime row is an exact transposition of the prime row up one half-step (**Table 7**).

Table 7. Prime forms used in *Le Merle Noir*

Row												
P0	A	D	G#	D#	Bb	Gb	E	C	Db	B	F	G
P1	Bb	D#	A	E	B	G	F	Db	D	C	Gb	G#
P2	B	E	Bb	F	C	G#	F#	D	D#	Db	G	A
P3	C	F	B	Gb	Db	A	G	D#	E	D	G#	Bb

This pattern naturally continues throughout the second and third forms of the prime row, and it is here that Messiaen chose to forgo the use of any of the other prime forms in favor of those from the retrograde inversion form, as shown in **Table 8**.

Table 8. Retrograde inversion forms used in *Le Merle Noir*

Row												
RI5	E	Gb	C	Bb	B	G	F	DB	G#	D#	A	D
RI6	F	G	Db	B	C	G#	Gb	D	A	E	Bb	D#
RI7	F#	G#	D	C	Db	A	G	D#	Bb	F	B	E
RI8	G	A	D#	Db	D	Bb	G#	E	B	Gb	C	F

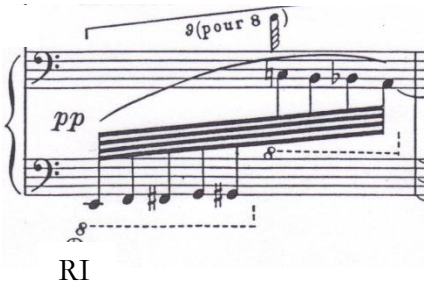
When using the retrograde inversion form, Messiaen also chose to use consecutive row forms, this time beginning on RI5. This approach ensured that if he used the combinations in consecutive numerical order, each statement of the row would be a half-step transposition of the previous combination.

Upon closer examination of the opening shape in the piano (**Figure 30)**, it is seen that Messiaen did not only create a partial chromatic scale, as has been highlighted by numerous theorists, including Priore[45] and Nichols[46], but more notably, it introduces a hint of the serialism occurring in the last third of the work by foreshadowing the first pitch in each of the permutations he has chosen. The only exception is an added G-sharp in the left hand, a pitch that has already been shown to be favored by Messiaen in this work.

[45] Irna Priore, "The Compositional Techniques of Messiaen's *Le Merle Noir,"* 12.

[46] Nichols, "Messiaen's '*Le Merle Noir*': The Case of a Blackbird in a Historical Pie," 648.

P0



RI

Figure 30. m. 1 (piano only)

Each time a new form begins, it is in strict numerical succession with those it follows. In addition, when the P0 is occurring, RI5 occurs with it simultaneously as somewhat of a countersubject. **Figure 31** illustrates the first use of the prime row (P0) in conjunction with the retrograde inversion (RI5) occurs, each in its entirety.

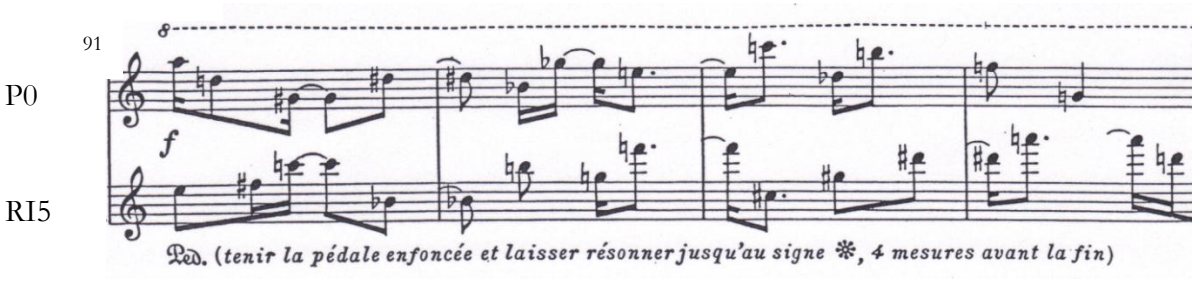


Figure 31. mm. 91–94 (piano only)

Messiaen systematically uses all of his chosen forms in numerical order, all the while creating relationships by using successive forms concurrently. As previously mentioned, this numerical consistency creates exact transpositions of a half-step away from the preceding section. This pattern continues through Messiaen's concurrent use of P3 and RI8, after which he ingeniously shifts the prime forms to the left hand of the piano and the retrograde inversion forms to the right hand. This shift occurs on the first sixteenth of measure 106, as shown in **Figure 32**.

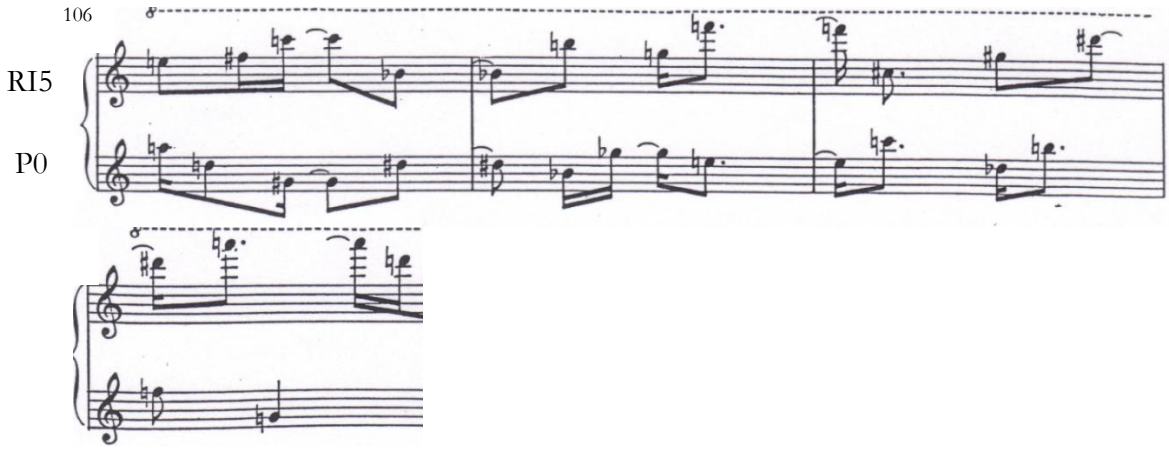


Figure 32. mm. 106–109 (piano only)

Although the creation of a melodic series is important when composing a completely serial work, it is certainly not the only factor that is considered by the composer. Those who endeavor to create by using these means must work with many other components to produce a larger entity. Elements such as dynamics, articulation, instrumentation, and timbre may be serialized as well. In the case of *Le Merle Noir*, Messiaen chose not only to serialize the melody, but also the rhythm.

As the pitches used in the serialized portion of the B section were determined by the construction of a matrix, the rhythmic values in the piano part were determined by a specific pattern of additive sixteenth notes. For *Le Merle Noir*, Messiaen created a pattern of four different sixteenth-note groupings with which to determine duration of pitches in this section. This rhythmic pattern begins directly in measure 91, as shown in **Figure 33**, in concurrence with the first appearance of the first two forms of the tone row. When extracted and presented with a count of the sixteenth notes, the pattern as it is used within the right hand piano line is evident.

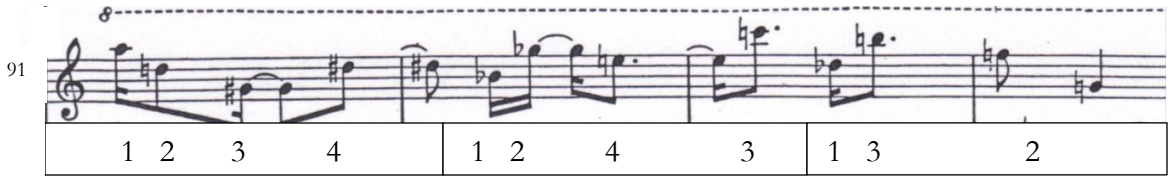


Figure 33. mm. 91–94 (piano right hand only)

As seen in **Figure 33**, the rhythmic serialization of P0 corresponds exactly with the first melodic serialization of the form. While this convergence is occurring in the right hand of the piano, the left hand has a completely different set of rhythmic patterns, as is shown in **Figure 34**.

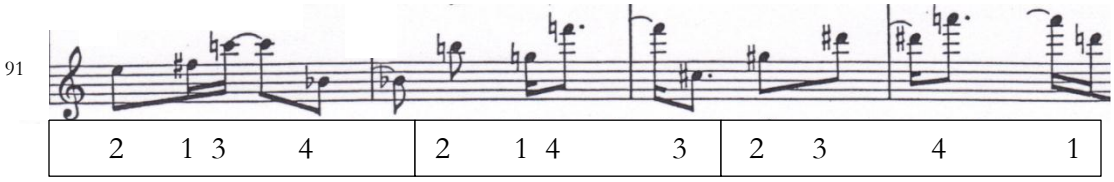


Figure 34. mm. 91–94 (piano left hand only)

Like its P0 counterpart, this pattern corresponds with the occurrence of RI5 exactly. When the melodic serialization changes hands, in measure 106 (shown in **Figure 35)**, so do the corresponding rhythmic patterns.

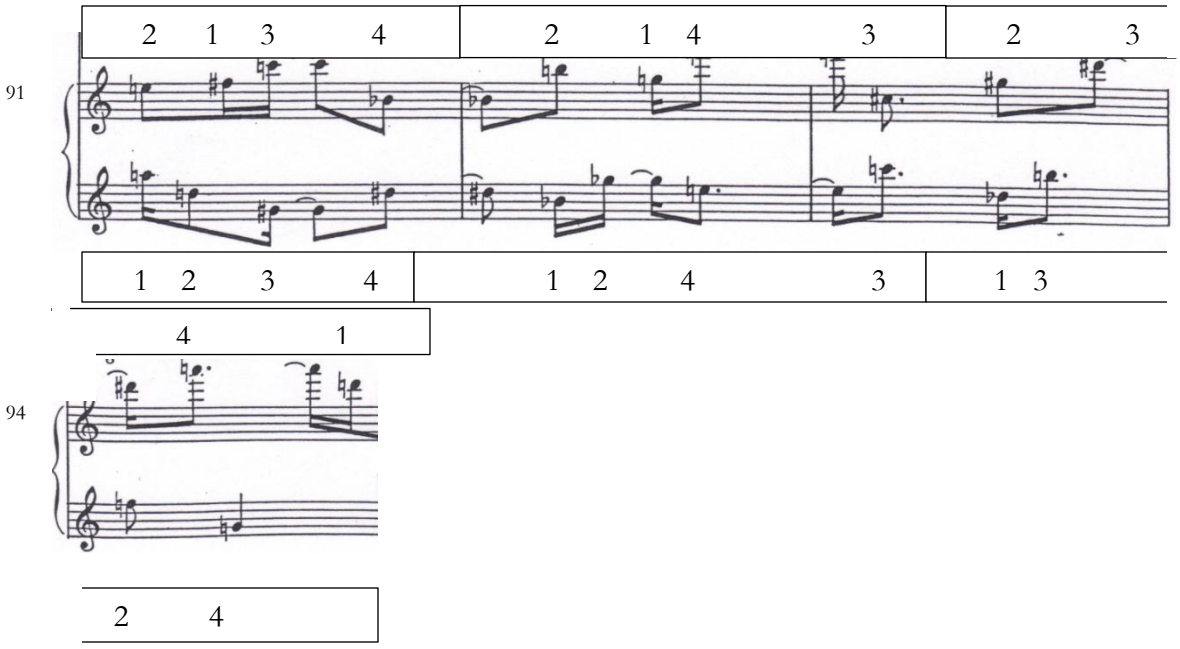


Figure 35. mm. 91–94 (piano only)

This carefully planned work comes to an end in a four-measure coda beginning in measure 122, with a brief restatement of the color chords in the piano (**Figure 36**). In this incarnation, the durations are abbreviated and have much less of the static, hovering quality previously heard in the color chords. Immediately following the piano's chords, the flute gives one more bird-like declaration—a sweeping ascent, followed by a quick, loud sixteenth-note C preceded by a B-flat grace note. As previously observed, this C is the highest pitch in the work. It is also important to note that it also has the loudest dynamic marking, *fff*. This quick ascent and loud closing chirp give the impression of the bird's final ascent as it disappears into the sky.

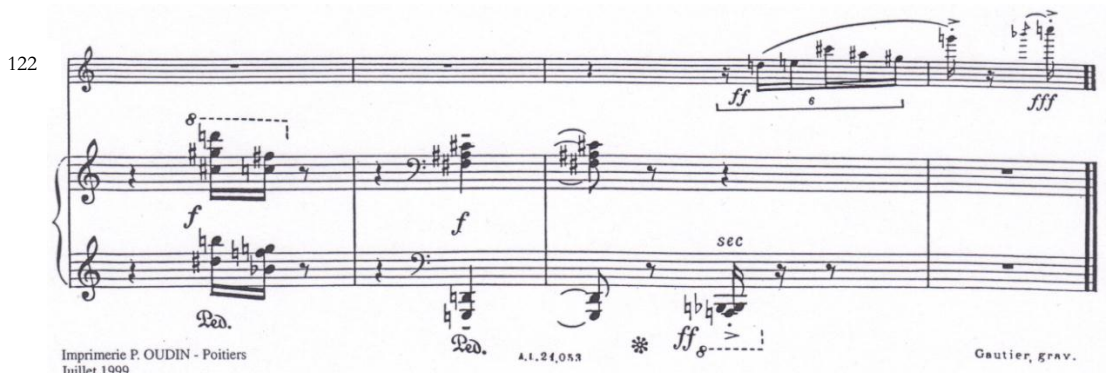


Figure 36. mm. 122–125

Conclusion

Although the structure of *Le Merle Noir* may seem indistinct to uninformed listeners, in reality Olivier Messiaen took exceptional care in its composition. By combining the three seemingly unrelated components of birdsong, Gregorian melodic patterns and poetic rhythmic patterns, he convincingly re-created the Common Blackbird's call in the flute's two cadenzas found in sections A and A^1. With the addition of the piano following each flute cadenza, Messiaen created intriguing canonic passages involving the compositional technique of additive rhythm. The call and response concept introduced in the canon is extended to the next subsection, the presentation of the canonic idea in stacked octaves. Each A section then moves into a violent transitional unit that serves as precursor to the highly organized B section. In the B section (which comprises approximately one third of the work), Messiaen combined the technique of total serialism with birdsong and pitch repetition to compellingly re-create the cacophony of many birds singing at once.

The significance of *Le Merle Noir* is substantial when regarding Olivier Messiaen's *oeuvre*. Not only is it one of his first works to be based on birdsong, it is one of the last of his

pieces which has an aspect of total serialism.[47] While the illusion of chaos created in *Le Merle Noir* is a complete one for the unenlightened listener, close examination of Messiaen's thoughtful construction reveals the rigid structure imposed by the composer. Through systematic analysis of each section of *Le Merle Noir,* this document has demonstrated that, by meticulous order, Messiaen unarguably succeeded in bringing the unruliness of nature to the concert hall.

[47] Christopher Murray, "The Timbres of *Timbres-durées*: Between Note and *Objet Musical*," (lecture, Electroacoacoustic Music Studies Network International Conference, Paris, June 3–7, 2008).

Bibliography

Benitez, Vincent. "Reconsidering Messiaen as Serialist." *Music Analysis* 28, no. 2–3 (July-October 2009): 267.

Bernard, Jonathan W. "Messiaen's Synaesthesia: The Correspondence Between Color and Sound Structure in his Music." *Music Perception: An Interdisciplinary Journal* 4, no. 1 (1986):41–68.

Forte, Allen. "Olivier Messiaen as Serialist." *Musical Analysis* 21, no. 1 (2002):3–34.

Griffiths, Paul. "*Catalogue de Couleurs*: Notes on Messiaen's Tone Colors on His 70th Birthday." *The Musical Times* 119, no. 1630 (1978): 1035–1037.

Griffiths, Paul. *Olivier Messiaen and the Music of Time.* Great Britain: Cornell University Press, 1985.

Hold, Trevor. "Messiaen's Birds." *Music & Letters* 52, no. 2 (1971):113–122.

Kostka, Stefan, and Dorothy Payne. *Tonal Harmony*. New York: Alfred A. Knopf, Inc., 1984.

Kraft, David. "Birdsong in the Music of Olivier Messiaen." Ph.D. diss.,Middlesex University, 2000.

Messiaen, Olivier. *Technique de mon Langage Musical.* Translated by John Satterfield. 2 vols. Paris: Alphonse Leduc, 1956.

Messiaen, Olivier. *Le Merle Noir,* Paris: Alfonse Leduc, 1952.

Murray, Christopher. "The Timbres of *Timbres-durées*: Between Note and Objet Musical" (paper presented at the Electroacoacoustic Music Studies Network International Conference, Paris, June 3–7, 2008).

Nichols, Roger. "Messiaen's *Le Merle Noir:* The Case of a Blackbird in a Historical Pie." *The Musical Times* 129, no. 1750 (1988):648–650.

Pople, Anthony. *Messiaen: Quatuor pour la fin du Temps*. Cambridge Music Handbooks. Cambridge, United Kingdom: Cambridge University Press, 1998.

Priore, Irna. "The Compositional Techniques of Messiaen's *Le Merle Noir*." *Flute Talk*, (2001):11–13.

Scholl, Robert, ed. *Messiaen Studies.* New York, New York: Cambridge University Press, 2007.

Schultz, Rob. "Melodic Contour and Nonretrogradable Structure in the Birdsong of Olivier Messiaen." *Music Theory Spectrum* 30, no. 1 (2008):89–137.

Wai-Ling, Cheong. "Neums and Greek Rhythms: The Breakthrough in Messiaen's Birdsong." *Acta Musicologica* 80, no. 1 (2008):1–32.